



Maricopa County

Air Quality Department

Interim Guidance Document For Title V Permit Revisions December 29, 2006

PURPOSE

The purpose of this guidance document is to address the Environmental Protection Agency's (EPA's) Notice Of Deficiency (70 FR 32243 - June 2, 2005) for the Clean Air Act Title V Operating Permits Program for Maricopa County (the County). This guidance will ensure that the County issues Title V permits that comply with all applicable requirements including the Title I new source review (NSR) requirements contained in the approved State Implementation Plan (SIP) for the County.

BACKGROUND

In the Notice Of Deficiency for Maricopa County's Title V Operating Permit Program, the EPA states that the County has issued Title V permits that do not assure compliance with all applicable requirements, and EPA also found that when processing minor permit revisions, the County typically signed the source's permit application to indicate approval rather than revising the permit. EPA also stated that the County has processed changes as minor permit revisions that should have been processed as significant permit revisions.

The Clean Air Act (CAA) establishes requirements for two permit programs. Title I of the CAA requires a permit program for the construction and modification of stationary sources (NSR - which includes Prevention Of Significant Deterioration (PSD) for attainment areas and New Source Review (NSR) for nonattainment areas), and Title V requires a permit program for the operation of stationary sources. Until 1993, the County required two permits for stationary sources: an installation permit before beginning construction or modification (required under Title I) and a separate permit authorizing operation of the new source or modification (required under Title V). Historically, the Title I SIP approved NSR program consists of SIP Rule 20 which requires pre-construction review, SIP Rule 21 which establishes the procedures for obtaining pre-construction review, and SIP Rule 2 which defines terms used in Rule 20.

In 1993, the County amended its air quality rules with the intention of meeting both the Title I NSR requirements and the Title V operating permit requirements with a unitary program that authorizes both construction and operation in a single permit. As part of this process, the EPA approved Rule 210-Title V Permit Provisions only under Title V of the CAA. EPA has not approved the amended air quality rules as a SIP revision for the NSR program. In fact, EPA Region IX has indicated to the County that revisions to current rules are necessary to make them approvable under Title I. The provisions of Rules 20 and 21 therefore remain applicable requirements of the SIP enforceable pursuant to A.R.S. §49-404.C and Title I of the CAA.

The provisions of the County's NSR SIP require pre-construction review for certain changes at a permitted source. Before making changes subject to the NSR SIP, Title V sources must obtain pre-construction review from the County. For the most part, the County enforces the pre-construction review requirements through the permit revision procedures of current Rule 210-Title V Permit Provisions. Those procedures, however, allow some changes that require pre-construction review under the SIP to proceed on the submission of notice or an application for a minor permit revision which is inconsistent with the NSR SIP.

This guidance explains how the County will ensure that changes or modifications to an emissions unit or operation at a Title V source will comply with both the pre-construction provisions in the NSR SIP and the

permitting procedures in the current Rule 210-Title V Permit Provisions. However, nothing in this guidance is intended to change the so-called WEPCO Rule for EUSGUs (electric utility steam generating units) (57 FR 32314, July 21, 1992). This guidance is divided into four sections: Section 1 describes the criteria for determining which changes require pre-construction review and describes the permit revision procedures that apply to the affected changes. Section 2 describes how to determine which permit revision track in Rule 210-Title V Permit Provisions will apply to the change. Section 3 describes actions a Title V source may take to streamline the permit revision process. Section 4 details the steps the County intends to take to implement this guidance.

SECTION 1: PRE-CONSTRUCTION REVIEW

Changes That Require Pre-Construction Review

Pre-construction review may be required by either Rules 200, 210, 240, or 241 or by Rule 20 in the NSR SIP. Item A below lists the types of changes that require pre-construction review under current rules and under the NSR SIP. Item B below lists the types of changes exempted from pre-construction review.

- A. Pre-Construction Review Criteria:** The County's current rules contain requirements for pre-construction review for existing Title V sources. Rule 200 establishes when a permit is required. Rule 210 contains procedures for processing permit revisions and lists several criteria establishing when pre-construction review is required. Rule 241 establishes criteria for non-major modifications and Rule 240 establishes criteria for major modifications.

The County's NSR SIP also contains requirements for pre-construction review for existing sources. The NSR SIP requires that, "any person erecting, installing, replacing or making a major alteration to any machine, equipment, incinerator, device or other article which may cause or contribute to air pollution or the use of which may eliminate or reduce or control the emission of air pollutants..." shall first obtain pre-construction review from the Control Officer before commencing construction or making the change.

Pre-construction review is required under current County rules or the NSR SIP for the following changes:

1. Changes that qualify as a major modification as defined in Rule 100. (Rules 200, 210 and 240)
2. Changes that increase a source's potential to emit for any regulated air pollutant by more than a significant amount as defined in Rule 100. (Rules 200, 210 and 240)
3. Changes that seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. (Rules 200, 210, 240 and 241)
4. Changes that require or alter a case-by-case determination of an emission limitation or other standard. (Rules 200, 210, 240, and 241)
5. Changes to a source specific determination of ambient impacts. (Rules 200, 210 and 240)
6. Changes to a visibility or increment analysis. (Rules 200, 210 and 240)
7. Changes that install or replace air pollution control equipment. (NSR SIP Rule 20)

8. Changes that install, erect or replace equipment that “may cause or contribute to air pollution”. To determine if equipment “may cause or contribute to air pollution”, use the definition of “insignificant activity” as defined in Rule 100: An insignificant activity shall be any activity, process, or emissions unit that is not subject to a source-specific applicable requirement, that emits no more than 0.5 ton per year of hazardous air pollutants (HAPs) and no more than 2 tons per year of a regulated air pollutant. Increases greater than the IER cause or contribute to air pollution and are therefore required to obtain pre-construction review under the NSR SIP. Note: Equipment that is described in Section 1, Item B.2 of this guidance is exempt from pre-construction review. (NSR SIP Rule 20)
9. Changes that would qualify as a “major alteration” or a “major modification” to the equipment. Major alterations or major modifications require pre-construction review under the requirements for significant permit revisions contained in Rule 210 §406. (NSR SIP Rules 2 and 20)

B. Modifications That Do Not Require Pre-Construction Review: The definitions for “modification” and “major modification” specifically exempt the following changes from pre-construction review:

1. Changes that are routine maintenance, repair or replacement.
2. Changes that are routine maintenance, repair or replacement to air pollution control equipment components as long as such changes do not redesign the equipment or degrade the control efficiency of the equipment.
3. Changes that are an increase in the hours of operation or in the production rate, unless the change would be prohibited under an enforceable permit condition.
4. Changes in ownership of the source.
5. Changes that are the use of an alternative fuel or raw material by reason of an order under Section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 792, or by reason of a natural gas curtailment plan under the Federal Power Act, 16 U.S.C. 792-825r.
6. Changes that are the use of an alternative fuel by reason of an order or rule under Section 125 of the Act.
7. Changes that are the use of an alternative fuel or raw material if, prior to January 6, 1975, the source or facility was capable of accommodating such fuel or material.
8. Changes that are the use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste.

Pre-Construction Review Requirements

When a Title V permittee wishes to make a change that would otherwise be entitled to proceed on notice under Rule 210 §403 but that is subject to pre-construction review as described above, it must submit an application for a minor permit revision. Furthermore, whenever a permittee wishes to make a change that is subject to pre-construction review, the permittee must obtain pre-construction review before proceeding with construction of the change. The permittee may *not* make the change immediately after submission of an application for a minor permit revision, as provided in Rule 210 §405.6.

At the time the County proposes a final minor permit revision under the conditions described in the preceding paragraph, such proposed revision shall constitute pre-construction review under the NSR SIP. The terms and conditions of that proposed final minor permit revision are the terms and conditions of the

pre-construction review required under the NSR SIP and are enforceable as such. The County will provide the source with a copy of the proposed final minor permit revision at the time the County submits the proposed final minor permit revision to the EPA for the 45-day review period.

On receipt of the proposed final minor permit revision, the permittee may proceed to make the change without waiting for completion of the EPA 45-day review period. The permittee does so, however, at its own risk consistent with Rule 210 §405.6. Rule 210 §405.6 also requires the permittee to comply with the proposed revised permit (proposed final minor permit revision) terms and conditions. An EPA objection to the permit revision may require a halt to construction activities and substantial changes to work already completed. Note: The County will issue a proposed minor permit revision for all minor permit revisions that will, at a minimum, include a revision number and date if no other revisions are necessary to the permit.

Pre-construction review requirements are met for changes that are required to follow the significant permit revision track under Rule 210 as those changes are not allowed to proceed until the permit revision is issued.

SECTION 2: DETERMINING WHICH TITLE V PERMIT REVISION TRACK APPLIES

Step 1: Describe And Characterize The Change

The Title V source shall compile information to describe and characterize the change, describe how the change will affect equipment or operations that result in the discharge of air pollutants, and quantify all pollutants released. The information must be as specific as possible and explain why the source wants to make the change. Sources are encouraged to contact the County with any questions that may arise during this process.

Step 2: Determine If Pre-Construction Review Is Required

Once the Title V source has compiled the information on the planned changes, the source consults flow charts in Figures 1-3 to determine the applicable pre-construction review process. The flow charts will assist the source as it compares the information compiled under Section 2, Step 1 to each criteria listed in Section 1, Item A. If any criteria are met, then pre-construction review is required.

Step 2a: Stepping thru Figure 1 in the flow charts, the source must determine whether the change under consideration will require pre-construction review as a major modification. To determine if the emission increase qualifies as a major modification under Rule 240 and the NSR SIP, calculate the increase by comparing the actual emissions of the existing equipment and operations to the potential emissions of the new or modified equipment and operations. However, this requirement/procedure does not apply to electric utility steam generating units (EUSGUs). EUSGUs are subject to the so-called WEPCO Rule for EUSGUs (57 FR 32314, July 21, 1992). If the change is not a major modification, a minor NSR applicability determination must be completed (see Figure 2 and Figure 3). If the change is a major modification, the source is subject to major NSR for that pollutant and is subject to the Title V significant permit revision procedures.

Step 2b: Following Figure 2 in the flow charts, the Title V source determines if it has an ~~annual~~ allowable emission limit, as defined in Rule 100, for the emission unit for the pollutant being evaluated.

- i. If the Title V source does not have an allowable emission limit for the emission unit for the pollutant being evaluated, then the source determines whether the increase in the potential to emit (PTE) of

the modification for the pollutant being evaluated is greater than 0.5 tpy of any HAP or 2 tpy of any other air pollutant (the IER). Note: When determining if the emission increase is greater than the IER, a source is not allowed to use netting.

- (1) If the increase in the PTE for the modification for the pollutant being evaluated does not exceed the IER, then the source, following Figure 3 in the flow charts, must determine if the proposed modification requires pre-construction review, because:
 - The modification seeks to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject.
 - The modification requires or alters a case-by-case determination of an emission limitation or other standard.
 - The modification changes a source specific determination of ambient impacts.
 - The modification changes a visibility ~~of~~ or increment analysis.
 - The modification installs or replaces air pollution control equipment.
 - The modification installs, erects or replaces equipment that results in an emission increase greater than 0.5 tpy of any HAP and 2 tpy of any other air pollutants (greater than the IER). Note: Changes that are routine maintenance, repair or replacement to air pollution control equipment components as long as such changes do not redesign the equipment or degrade the control efficiency of the equipment are exempt from pre-construction review.
 - (2) If the increase in the PTE for the modification for the pollutant being evaluated does exceed the IER, then the modification requires pre-construction review under the NSR SIP. The Title V source must follow Step #3 in this guidance (and Figure 4 in the flow charts) to determine if a minor or significant permit revision is required. Note: The terms and conditions of the proposed final minor permit revision are the terms and conditions of the pre-construction review required under the NSR SIP and are enforceable as such.
- ii. If the Title V source does have an allowable emission limit for the emission unit for the pollutant being evaluated, then the source determines whether it seeks to increase the annual allowable emission limit for that pollutant.
- (1) If the source does not seek to increase the annual allowable emission limit for that pollutant, then the source, following Figure 3 in the flow charts, must determine if the proposed modification requires pre-construction review, because:
 - The modification seeks to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject.
 - The modification requires or alters a case-by-case determination of an emission limitation or other standard.
 - The modification changes a source specific determination of ambient impacts.
 - The modification changes a visibility ~~of~~ or increment analysis.
 - The modification installs or replaces air pollution control equipment.
 - The modification installs, erects or replaces equipment that results in an emission increase greater than 0.5 tpy of any HAP and 2 tpy of any other air pollutants (greater than the IER). Note: Changes that are routine maintenance, repair or replacement to air pollution control equipment components as long as such changes do not redesign the equipment or degrade the control efficiency of the equipment are exempt from pre-construction review.

- (2) If the source does seek to increase the annual allowable emission limit for that pollutant, then the modification requires pre-construction review under the NSR SIP. The Title V source must follow Step #3 in this guidance (and Figure 4 in the flow charts) to determine if a minor or significant permit revision is required. Note: The terms and conditions of the proposed final minor permit revision are the terms and conditions of the pre-construction review required under the NSR SIP and are enforceable as such.

Whether or not pre-construction review is required under the NSR SIP, the Title V source must then determine which Title V permit revision track to follow. The Title V source must follow Step #3 in this guidance (and Figure 4 in the flow charts) to determine if a minor or significant permit revision is required.

Step 3: Determine Which Title V Permit Revision Track To Follow

Figure 4 in the flow charts presents the process for determining which Title V permit revision track is required for the proposed change. A modification that requires pre-construction review under the NSR SIP will also require the source to revise its Title V permit following the minor or significant permit revision requirement in Rule 210 §405 through §406. Note: The application of Rule 210 §405.6-Minor Permit Revisions-Source's Ability To Make Change is subject to the NSR SIP requirements for pre-construction review.

Other changes that do not require pre-construction review may still require a Title V permit revision. The nature of the change determines how these permit revisions are processed. Changes that do not require pre-construction review are incorporated into the Title V permit through notifications, administrative amendments, or minor permit revisions under the criteria in Rule 210 §403 through §406.

SECTION 3: STREAMLINING THE PERMIT REVISION PROCESS

Sources can streamline the permit revision process in a number of ways. The following suggestions may help reduce the time to process the Title V permit revision:

- Call the Department and discuss any questions.
- Submit a complete application including proposed permit conditions.
- Follow the Department's "NSR Applicability & Title V Revision Flow Chart" and "Title V Permit Revision Process Flow Chart Checklist" and provide an explanation of each step and the determination required. (See Appendix A and Appendix B)

SECTION 4: GUIDANCE IMPLEMENTATION

In order to implement this guidance, the County will:

- Distribute a copy of the guidance to all current Title V permit holders.
- Include the guidance with all Title V permit application forms provided to applicants.
- Make the guidance available on-line and in print..
- Provide training to Title V permit staff on the administration of the guidance.

APPENDIX A

NSR Applicability & Title V Revision Flow Chart

Figure 1: Modification at an Existing SS – Major NSR Applicability

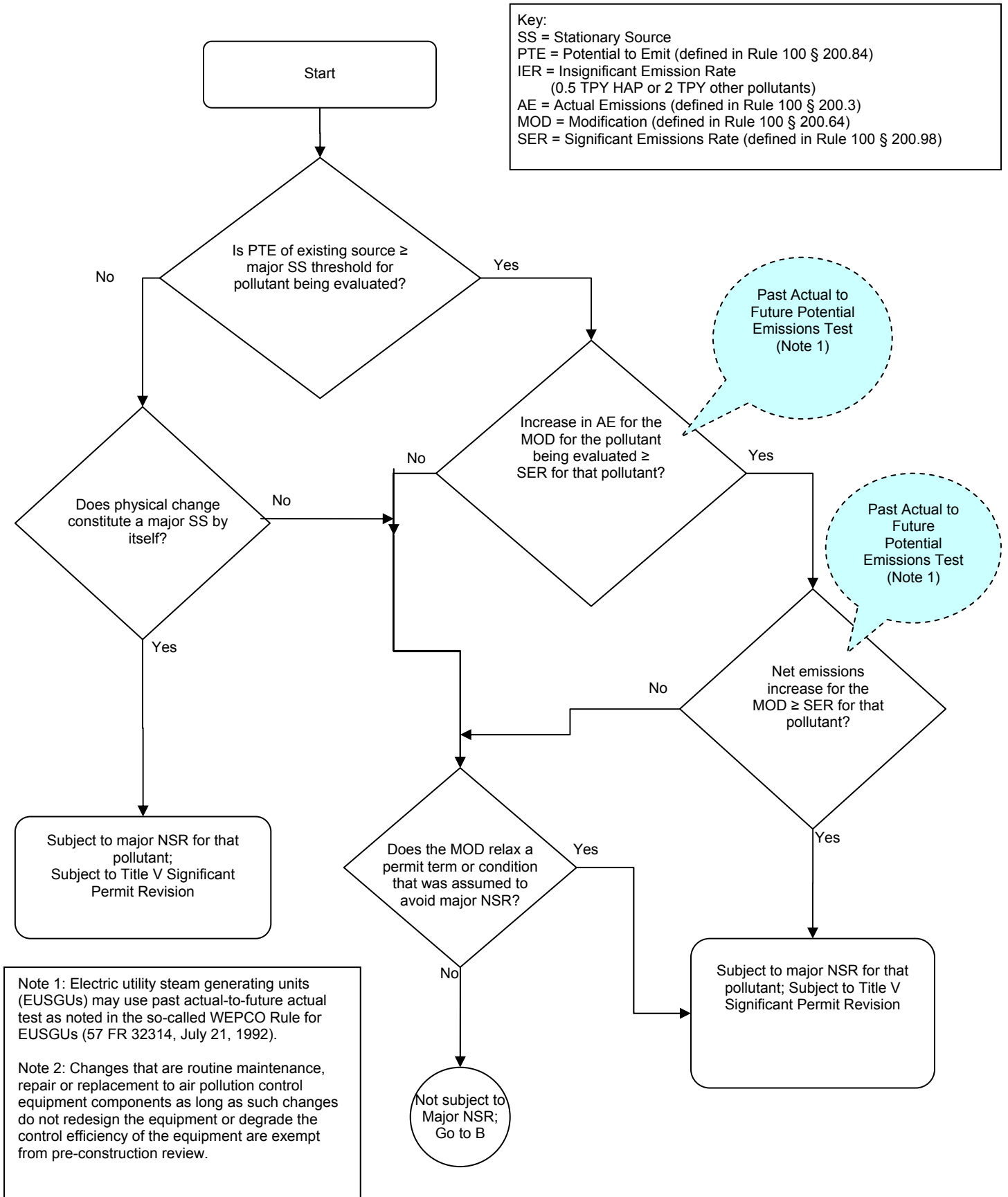
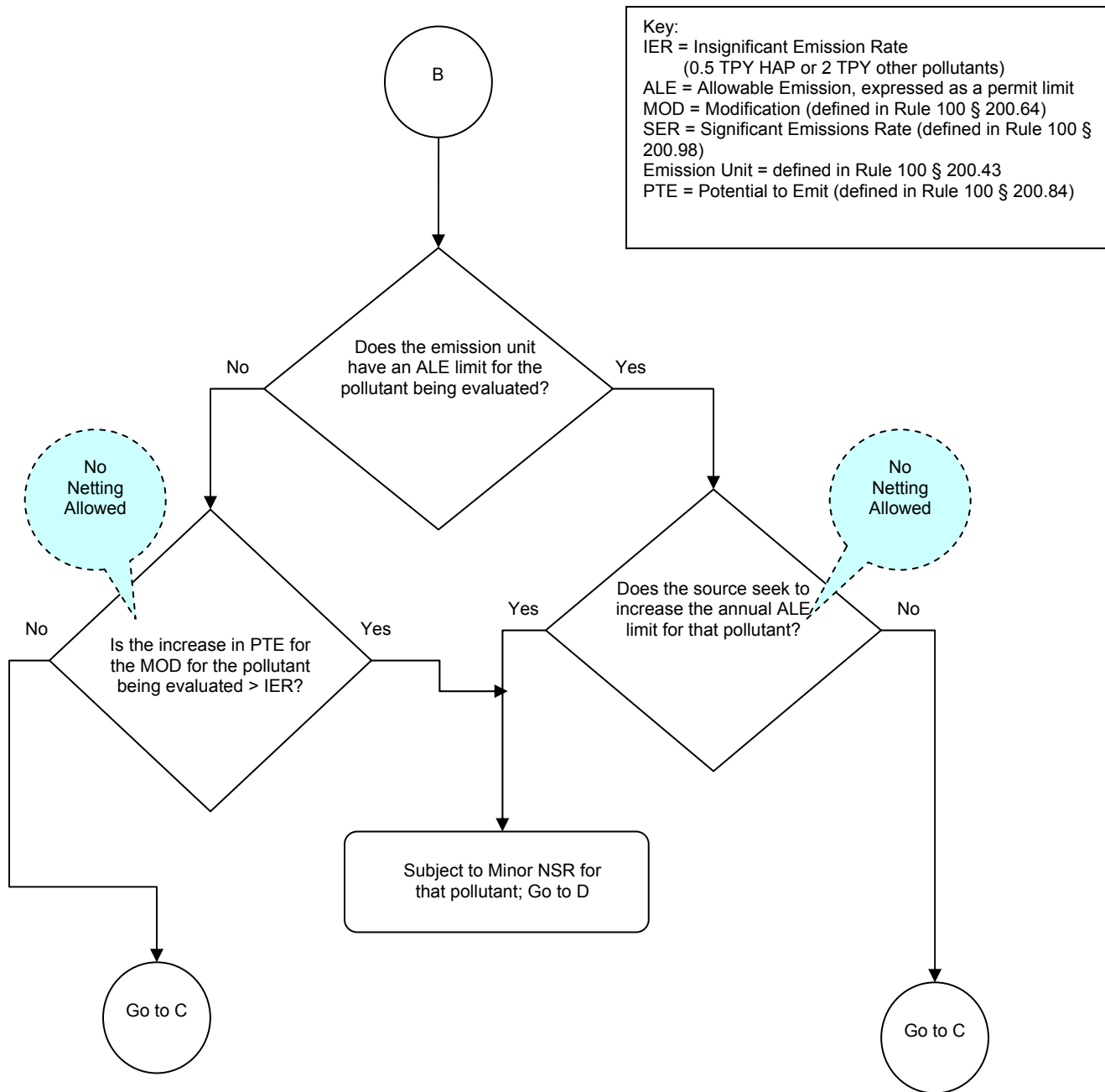
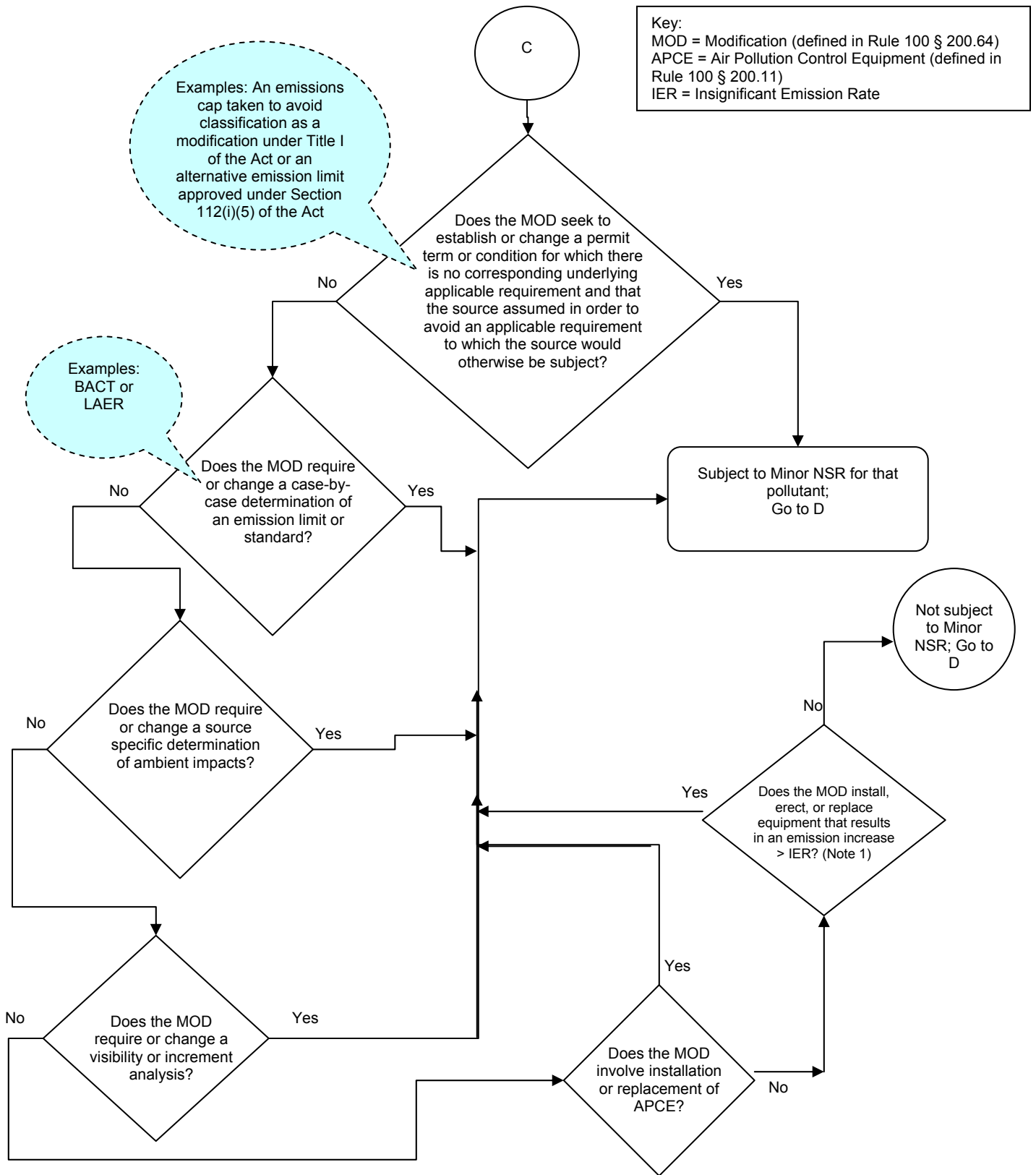


Figure 2: Modification at an Existing SS – Minor NSR Applicability



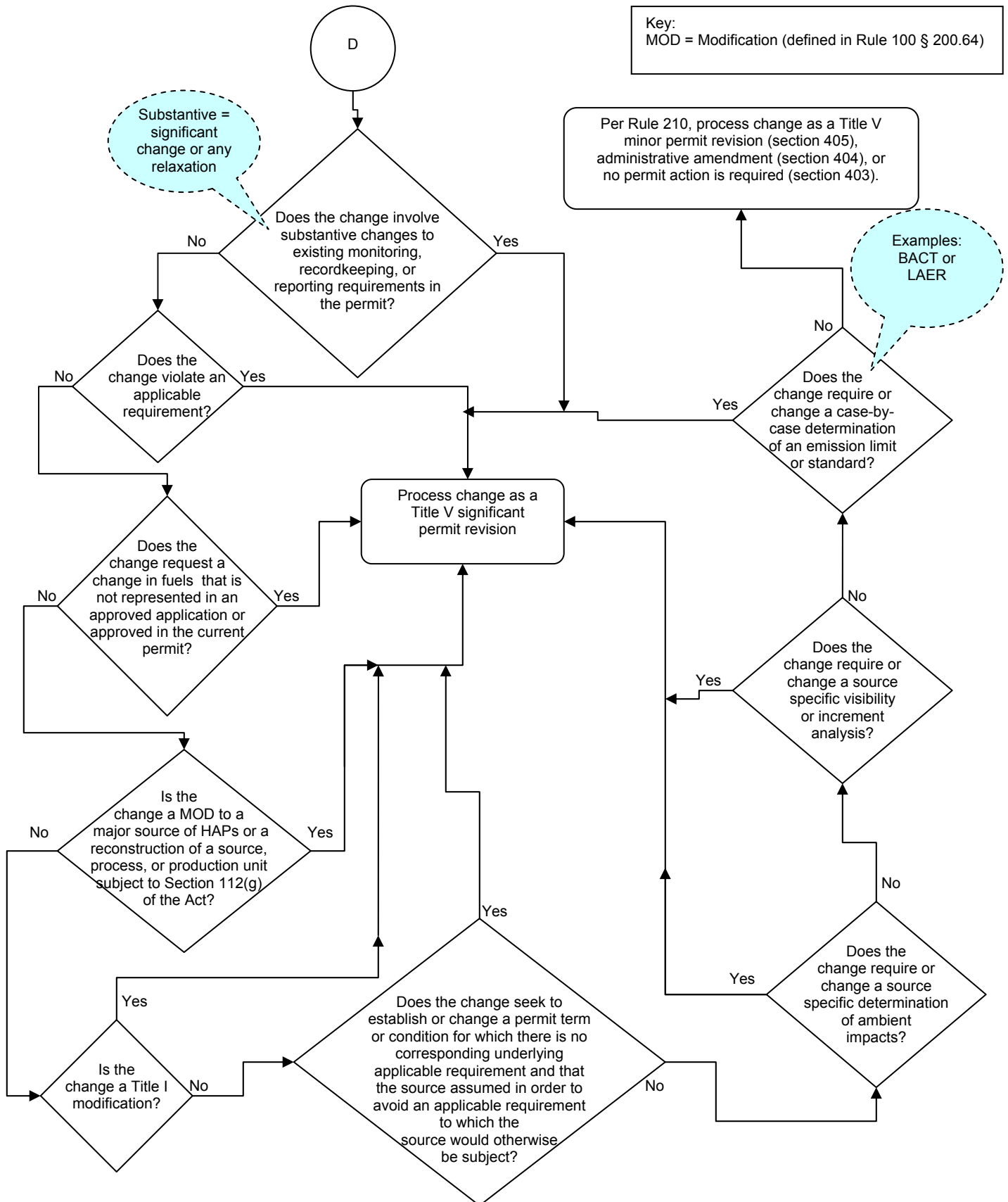
Note: For the purposes of Figure 2, the evaluation of Potential to Emit shall only consider emissions from the emission unit being modified, rather than a facility-wide emissions evaluation.

Figure 3: Modification at an Existing SS – Minor NSR Applicability



Note 1: Increases greater than the IER require pre-construction review under the NSR SIP. However, changes that are routine maintenance, repair or replacement to air pollution control equipment components as long as such changes do not redesign the equipment or degrade the control efficiency of the equipment are exempt from pre-construction review.

Figure 4: Title V Permit Revision Requirements



APPENDIX B

Title V Permit Revision Process Flow Chart Checklist

Title V Permit Revision Process Flow Chart Checklist

	Item	Yes	No	Comment	Note
MAJOR NSR EVALUATION					
1	Is a modification to an existing stationary source being proposed?				
	1a Is the modification routine maintenance, repair or replacement?				
2	Is the PTE of the existing stationary source greater than or equal to the major stationary source threshold for the pollutant being evaluated?				
	2a If NO to Question #2, does the physical change constitute a major stationary source by itself (is the PTE of the modification being evaluated greater than or equal to the major stationary source threshold for the pollutant being evaluated)?				If YES, subject to Major NSR and Title V Significant Revision Process
	2b If NO to Question #2a, does the modification relax a permit term or condition that was assumed to avoid major NSR?				If YES, subject to Major NSR and Title V Significant Revision Process
	2c If NO to Question #2b, not subject to Major NSR but possibly subject to Minor NSR (go-to Question #5 under Minor NSR Evaluation)				

	Item	Yes	No	Comment	Note
MAJOR NSR EVALUATION CONTINUED					
3	If YES to Question #2, is the increase in actual emissions from the modification (for the pollutant being evaluated) greater than or equal to the significant emissions rate (SER) for that pollutant? (Past Actual to Future Potential Test)				
3a	If NO to Question #3, does the modification relax a permit term or condition that was assumed to avoid major NSR?				If YES, subject to Major NSR and Title V Significant Revision Process
3b	If NO to Question #3a, not subject to Major NSR but possibly subject to Minor NSR (go-to Question #5 under Minor NSR Evaluation)				
4	If YES to Question #3, is net emissions increase for the modification greater than or equal to the significant emissions rate (SER) for that pollutant?				If YES, subject to Major NSR and Title V Significant Revision Process
4a	If NO to Question #4, does the modification relax a permit term or condition that was assumed to avoid major NSR?				If YES, subject to Major NSR and Title V Significant Revision Process
4b	If NO to Question #4a, not subject to Major NSR but possibly subject to Minor NSR (go-to Question #5 under Minor NSR Evaluation)				

	Item	Yes	No	Comment	Note
MINOR NSR EVALUATION					
5	Does the emission unit have an allowable emission limit (expressed as a permit limit) for the pollutant being evaluated?				
5a	If NO to Question #5, is the increase in PTE for the modification for the pollutant being evaluated greater than the insignificant emission rate (IER)? (No netting allowed)				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
5b	If NO to Question #5a, does the modification seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source assumed in order to avoid an applicable requirement to which the source would otherwise be subject?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
5c	If NO to Question #5b, does the modification require or change a case-by-case determination of an emission limit or standard?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
5d	If NO to Question #5c, does the modification require or change a source specific determination of ambient impacts?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process

	Item	Yes	No	Comment	Note
MINOR NSR EVALUATION CONTINUED					
	5e	If NO to Question #5d, does the modification require or change a visibility or increment analysis?			If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
	5f	If NO to Question #5e, does the modification involve installation or replacement of air pollution control equipment?			If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
	5g	If NO to Question #5f, does the modification install, erect, or replace equipment that results in an emissions increase greater than the insignificant emission rate (IER)?			If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
	5h	If NO to Question #5g, not subject to Minor NSR for that pollutant but subject to Title V Minor or Significant Revision Process			
6		If YES to Question #5, does the source seek to increase the annual allowable emission limit (expressed as a permit limit) for that pollutant? (No netting allowed)			If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process

	Item	Yes	No	Comment	Note
MINOR NSR EVALUATION CONTINUED					
6a	If NO to Question #6, does the modification seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source assumed in order to avoid an applicable requirement to which the source would otherwise be subject?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
6b	If NO to Question #6a, does the modification require or change a case-by-case determination of an emission limit or standard?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
6c	If NO to Question #6b, does the modification require or change a source specific determination of ambient impacts?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
6d	If NO to Question #6c, does the modification require or change a visibility or increment analysis?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
6e	If NO to Question #6d, does the modification involve installation or replacement of air pollution control equipment?				If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process

	Item	Yes	No	Comment	Note
MINOR NSR EVALUATION CONTINUED					
	6f	If NO to Question #6e, does the modification install, erect, or replace equipment that results in an emissions increase greater than the insignificant emission rate (IER)?			If YES, subject to Minor NSR for that pollutant and Title V Minor or Significant Revision Process
	6g	If NO to Question #6f, not subject to Minor NSR for that pollutant but subject to Title V Minor or Significant Revision Process			

	Item	Yes	No	Comment	Note
TITLE V EVALUATION					
7	Does the change involve substantive changes (significant changes or any relaxations) to existing monitoring, recordkeeping, or reporting requirements in the permit?				If YES, process change as a Title V Significant Permit Revision

7a	If NO to Question #7, does the change violate an applicable requirement?				If YES, process change as a Title V Significant Permit Revision
7b	If NO to Question #7a, does the change request a change in fuels that is not represented in an approved application or approved in the current permit?				If YES, process change as a Title V Significant Permit Revision
7c	If NO to Question #7b, is the change a modification to a major source of HAPs or a reconstruction of a source process or production unit subject to Section 112(g) of the Act?				If YES, process change as a Title V Significant Permit Revision

	Item	Yes	No	Comment	Note
TITLE V EVALUATION CONTINUED					
7d	If NO to Question #7c, is the change a Title I modification?				If YES, process change as a Title V Significant Permit Revision
7e	If NO to Question #7d, does the change seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source assumed in order to avoid an applicable requirement to which the source would otherwise be subject?				If YES, process change as a Title V Significant Permit Revision
7f	If NO to Question #7e, does the change require or change a source specific determination of ambient impacts?				If YES, process change as a Title V Significant Permit Revision
7g	If NO to Question #7f, does the change require or change a source specific visibility or increment analysis?				If YES, process change as a Title V Significant Permit Revision
7h	If NO to Question #7g, does the change require or change a case-by-case determination of an emission limit or standard (i.e., BACT or LAER)?				If YES, process change as a Title V Significant Permit Revision
7i	If NO to Question #7h, process change as a Title V Minor Permit Revision (per Rule 210, Section 405); process change as an Administrative Amendment (per Rule 210, Section 404); or no permit action is required (per Rule 210, Section 403).				